

Amendments to the Claims

The listing of claims below will replace all prior versions and listings of claims in the present application.

Claim Listing

1 1. (Currently Amended) A system for producing holographic stereograms
2 (holograms) on-demand by an individual customer, from source material provided by the
3 customer, comprising:

4 ~~at least one~~ a data acquisition station, ~~each~~ having a data acquisition processor
5 that receives image data based on the source material and a customer-
6 based preview processor that displays a representation of the hologram for
7 viewing by the customer;
8 an image processing station, ~~each~~ having an image processor operable to generate
9 hogel data based on image data received from the data acquisition station;
10 and
11 a printing station having a spatial light modulator for receiving the hogel data
12 from the image processor and for displaying holographic object images,
13 and having a printer for producing a master holographic stereogram;
14 wherein the data acquisition station is in data communication with the image
15 processing station and the printing station.

1 2. (Original) The system of Claim 1, wherein the data acquisition station is
2 remote from the image processing station and the printing station.

1 3. (Original) The system of Claim 1, wherein the image processing station also
2 has an operator-based preview processor operable to display a representation of the
3 hologram for viewing by an operator of the image processor.

1 4. (Original) The system of Claim 1, wherein the data acquisition station is a
2 personal computer.

1 5. (Original) The system of Claim 4, wherein the data communication is
2 accomplished via the Internet.

1 6. (Original) The system of Claim 4, wherein the data acquisition processor and
2 the customer-based preview processor execute with programming downloaded to the
3 personal computer.

Q 1 7. (Original) The system of Claim 4, wherein the customer-based preview
2 processor displays preview images generated at a remote server.

1 8. (Original) The system of Claim 1, wherein the data acquisition processor
2 receives at least input from a video source.

1 9. (Original) The system of Claim 1, wherein the data acquisition processor
2 receives at least input from two dimensional printed material.

1 10. (Original) The system of Claim 1, wherein the data acquisition station further
2 has a compositing processor for combining image data from different source material.

1 11. (Original) The system of Claim 1, wherein the data acquisition station further
2 has a graphics database for storing image data to be added to image data provided by a
3 customer.

1 12. (Original) The system of Claim 1, wherein the data acquisition station further
2 has a digitizer for providing image data from source material provided by a customer.

1 13. (Original) The system of Claim 1, further comprising a replicating station for
2 producing hologram copies from the master hologram.

1 14. (Original) The system of Claim 1, wherein the image processing station and
2 printing station are geographically remote and in data communication.

1 15. (Original) The system of Claim 1, wherein the data acquisition processor
2 delivers 2D sequence data to the image processor.

1 16. (Original) The system of Claim 1, wherein the data acquisition processor
2 delivers computer generated 3D graphics data to the image processor.

1 17. (Original) A method for producing holographic stereograms (holograms) on-
2 demand for an individual customer, from customer-provided source material, comprising
3 the steps of:

4 acquiring image data at a data acquisition station having a data acquisition
5 processor that receives image data based on the source material and a
6 customer-based preview processor that displays a representation of the
7 hologram for viewing by the customer;
8 delivering the image data to an image processing station having an image
9 processor operable to generate hogel data based on image data received
10 from the data acquisition station; and
11 delivering the hogel data to a printing station having a spatial light modulator for
12 receiving the hogel data from the image processor and for displaying
13 holographic object images, and having a printer for producing a master
14 holographic stereogram.

1 18. (Original) The method of Claim 17, wherein the data acquisition station is
2 remote from the image processing station and the printing station.

1 19. (Original) The method of Claim 17, wherein the image processing station
2 also has an operator-based preview processor operable to display a representation of the
3 hologram for viewing by an operator of the image processor.

1 20. (Original) The method of Claim 17, wherein the data acquisition station is a
2 personal computer.

1 21. (Currently Amended) The method of Claim 20, wherein the data acquisition
2 station is in data communication with the image processing station and the printing
3 station, and wherein the data communication is accomplished via the Internet.

1 22. (Original) The method of Claim 20, wherein the data acquisition processor
2 and the customer-based preview processor execute with programming downloaded to the
3 personal computer.

1 23. (Original) The method of Claim 20, wherein the customer-based preview
2 processor displays preview images downloaded from a server.

1 24. (Original) The method of Claim 17, wherein the data acquisition processor
2 receives at least input from a video source.

1 25. (Original) The method of Claim 17, wherein the data acquisition processor
2 receives at least input from two dimensional printed material.

1 26. (Original) The method of Claim 17, further comprising the step of
2 compositing image data from different source material.

1 27. (Original) The method of Claim 26, wherein the compositing occurs at the
2 data acquisition station.

1 28. (Original) The method of Claim 26, wherein the compositing occurs at a
2 server site, such that the pre-view processor displays composited preview images
3 downloaded from the server site.

1 29. (Original) The method of Claim 17, wherein the image processing station
2 and printing station are geographically remote and in data communication.

1 30. (Original) The method of Claim 17, wherein the data acquisition processor
2 delivers 2D sequence data to the image processor.

Q1 1 31. (Original) The method of Claim 17, wherein the data acquisition processor
2 delivers computer generated 3D graphics data to the image processor.
